SAFETY SUPPLEMENT

TECHNICAL MANUAL

AEROSPACE EMERGENCY RESCUE AND MISHAP RESPONSE INFORMATION (EMERGENCY SERVICES)

THIS PUBLICATION SUPPLEMENTS TO 00-105E-9 REVISION 8, DATED 30 SEPTEMBER 2002, LOCATED AT WEB SITE:**http://www.robins.af.mil/logistics/LGEDA/Documents/to00-105e-9.htm**.

DISTRIBUTION STATEMENT - Approved for public release; distribution unlimited.

COMMANDERS ARE RESPONSIBLE FOR BRINGING THIS SUPPLEMENT TO THE ATTENTION OF ALL AFFECTED AIR FORCE PERSONNEL.

PUBLISHED UNDER AUTHORITY OF THE SECRETARY OF THE AIR FORCE

29 January 2004

1. PURPOSE.

This supplement provides instructions for update of TO 00-105E-9 Revision 8, dated 30 September 2002, affecting Chapter 6 USAF Cargo Aircraft. This supplement adds new and first time information regarding all C-130J aircraft procedures. This aircraft differs from former C-130 aircraft to include both regular and stretched fuselage models.

2. INSTRUCTIONS.

a. This information, if it applies to your operation, can be downloaded and printed from this web site by the end user. Use the most current Adobe Reader for this function. This software is free and can be downloaded from Adobe.com at their web site. PDF files should be downloaded with the Reader running on your PC to reduce download time.

b. This supplement to Chapter 6 adds information based on newly researched source data information regarding the variations of this cargo aircraft. The new file update should be added to Chapter 10 in TO 00-105E-9 Revison 8. The end user should save this file and print the affected pages, if applicable to the user's operation. File a copy of this Safety Supplement with the main Technical Order according to current regulations.

NOTE

The operational user file is the whole or selected printed pages from the web site placed in a binder used for local, transient operations or both. This information should also be included in mobility boxes where applicable. If your unit or a part of your unit is serving elsewhere, they should be informed of this Safety Supplement and how to obtain it. See TO 00-5-2 paragraphs 1-1.4,1-1.4.1, and 1-1.6 for Local Reproduction of TOs and Digital Media guidance.

THE END

AIRCRAFT PAINT SCHEME

C-130J

AIRCRAFT DIMENSIONS AND GENERAL INFORMATION

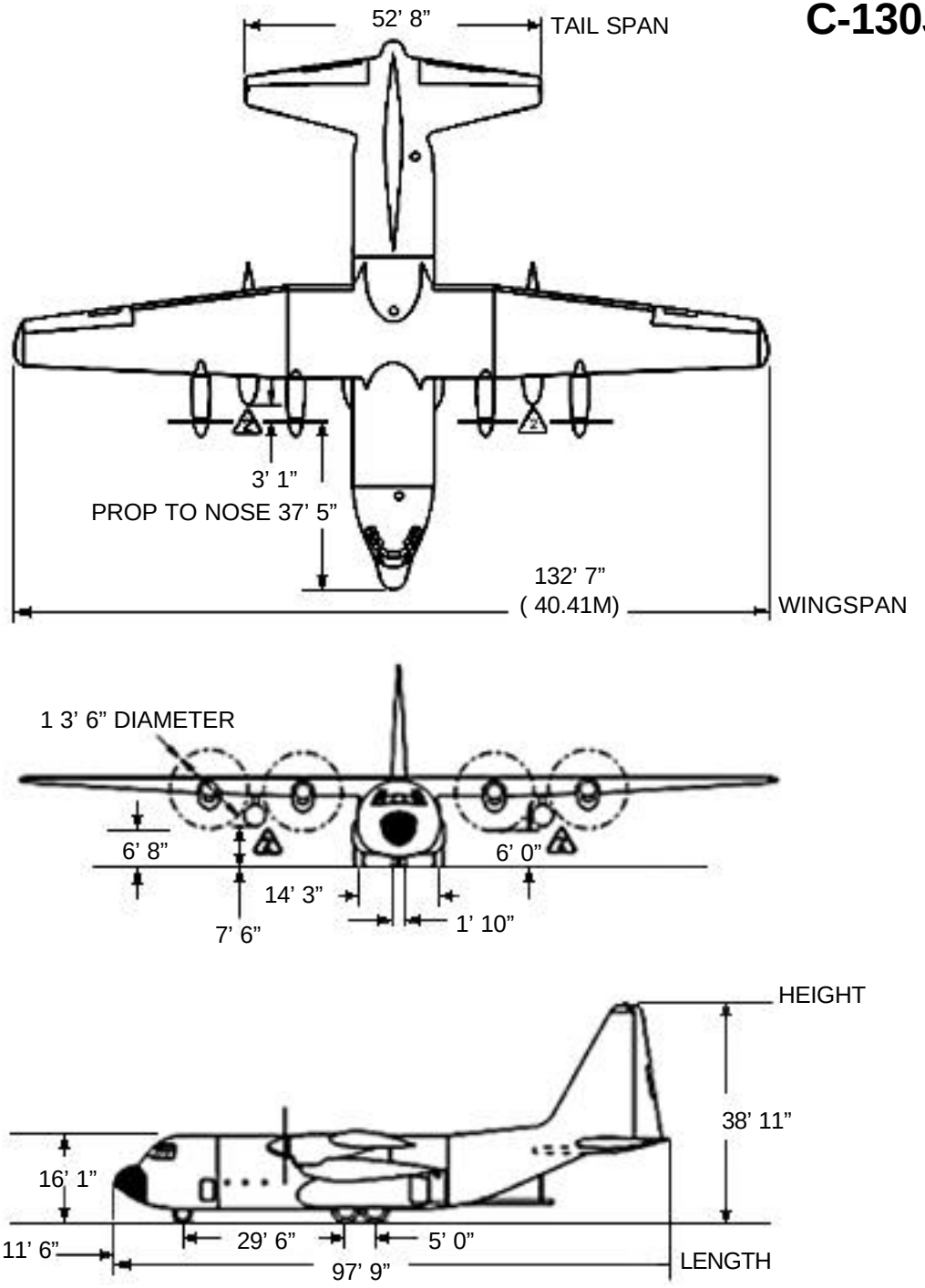
1. GENERAL INFORMATION

The C-130J is a long-range, cargo and troop carrying land aircraft. The aircraft is powered by four Allison AE2100D3 turboprop engines driving Dowty six-bladed propellers. The primary mission of this multipurpose aircraft is to provide rapid transportation of personnel or cargo for delivery by parachute or by landing. The fuselage is divided into a cargo compartment and the flight station. The normal flight crew consists of a pilot and copilot. A seat is also available for an augmented crewmember. The aircraft can land and take off on short runways, and it can be used on landing strips such as those usually found in base operations. The landing gear is tricycle type. Dual wheels on the nose gear pivot to turn the aircraft. The main gear consists of two vertical strut assemblies for each side. A wheel is mounted on each vertical strut. Each vertical strut is linked in tandem by a horizontal torque strut. The main landing gears are mounted in wheel well pods on each side of the fuselage under the wings. A clear cube cargo space is fully accessible through an aft-mounted cargo door and ramp. The ramp can be lowered for drive-on loading from the ground level or can be raised for loading from truck bed height. The clear cube loading dimensions are 108 inches highand 120 inches wide for the full length of the cargo section.

NOTE:

Dimensions show a 328U (unstretched) aircraft equipped and empty.

△2 External wing tanks are optional equipment.

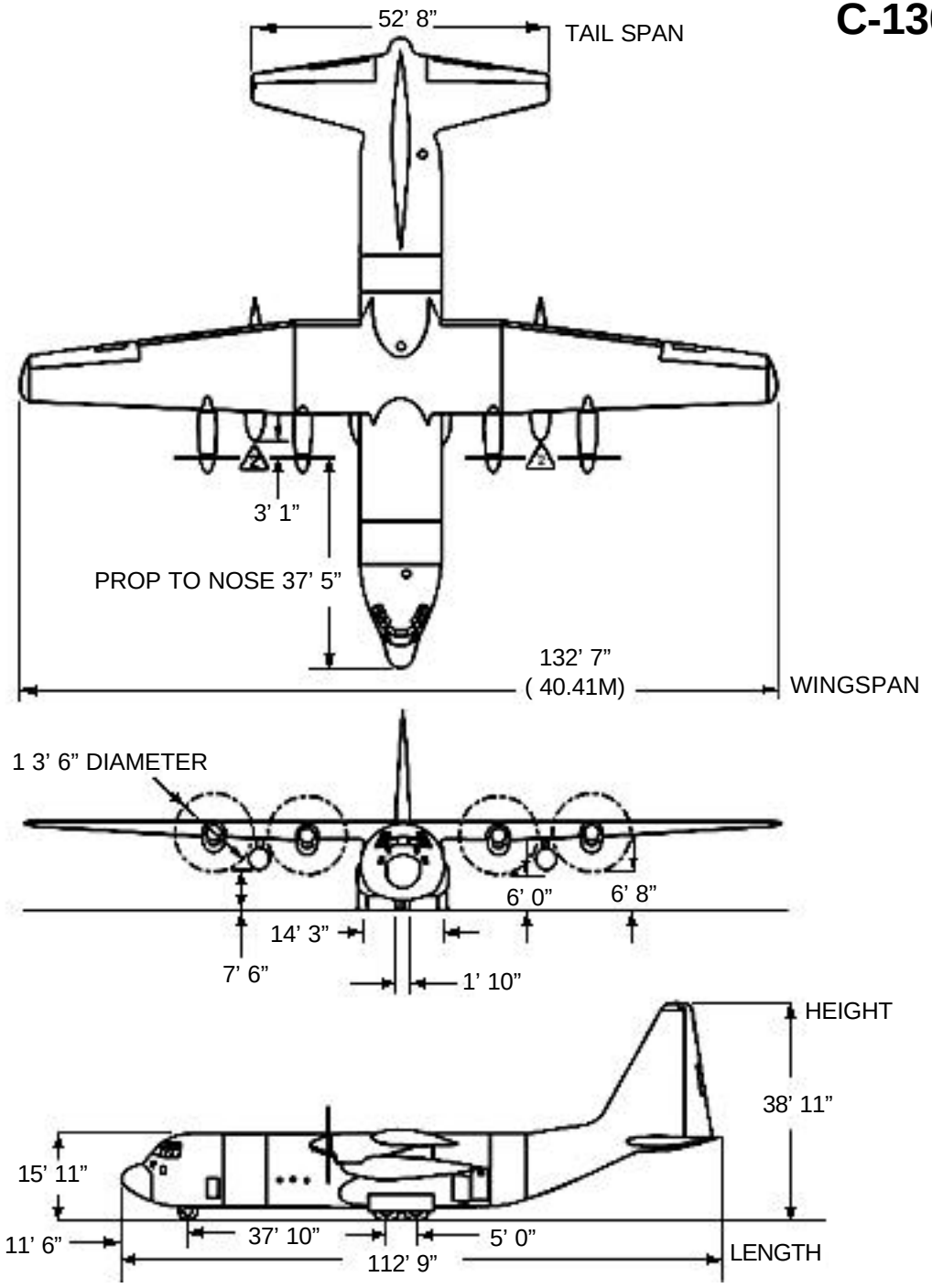


AIRCRAFT DIMENSIONS-Continued

NOTE:

Dimensions show a 328V (stretched) aircraft equipped and empty.

2 External wing tanks are optional equipment.



SKIN PENTRATION POINTS

FORWARD FUSELAGE (BOTH SIDES)

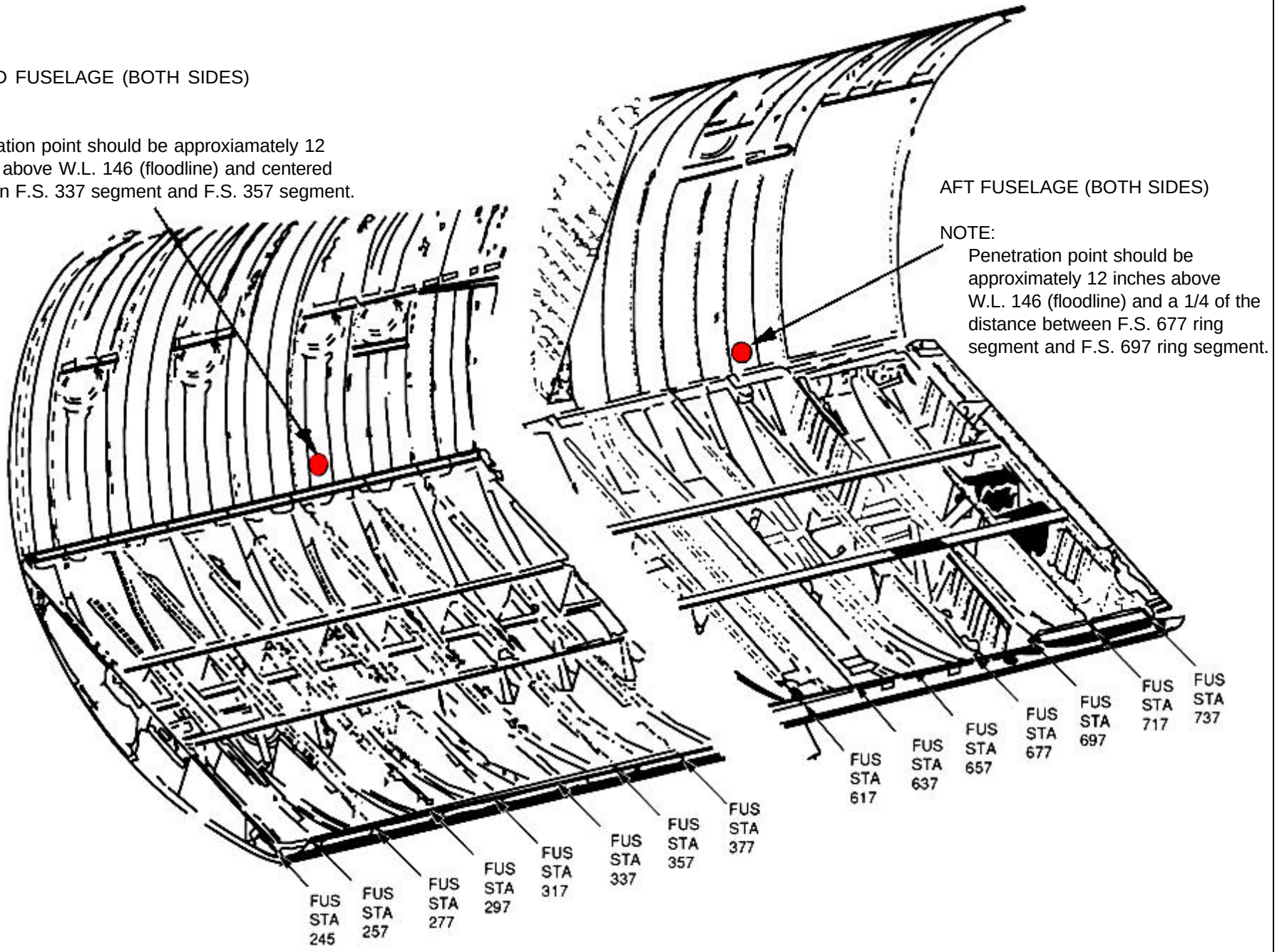
NOTE:

Penetration point should be approxiamately 12 inches above W.L. 146 (floodline) and centered between F.S. 337 segment and F.S. 357 segment.

AFT FUSELAGE (BOTH SIDES)

NOTE:

Penetration point should be approximately 12 inches above W.L. 146 (floodline) and a 1/4 of the distance between F.S. 677 ring segment and F.S. 697 ring segment.



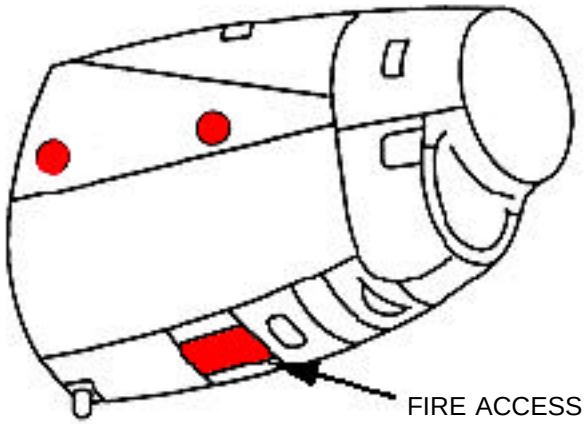
SKIN PENTRATION POINTS- Continued

NOTE:

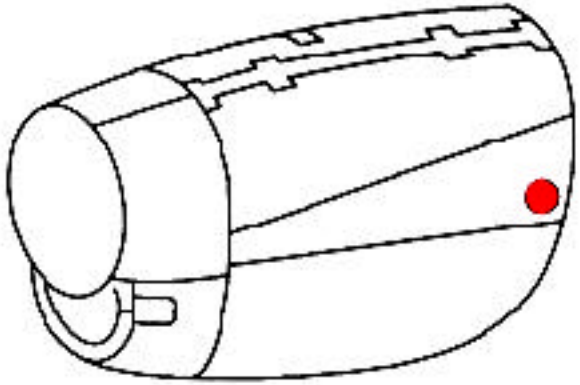
Penetration points are the same on all four engine nacelles.

WARNING

Fire access panels may have accumulated flammable dripping fluids. Use caution to avoid these fluids when opening the spring loaded access panel.



RIGHT SIDE



LEFT SIDE

AIRFRAME MATERIALS

1. AIRFRAME MATERIALS

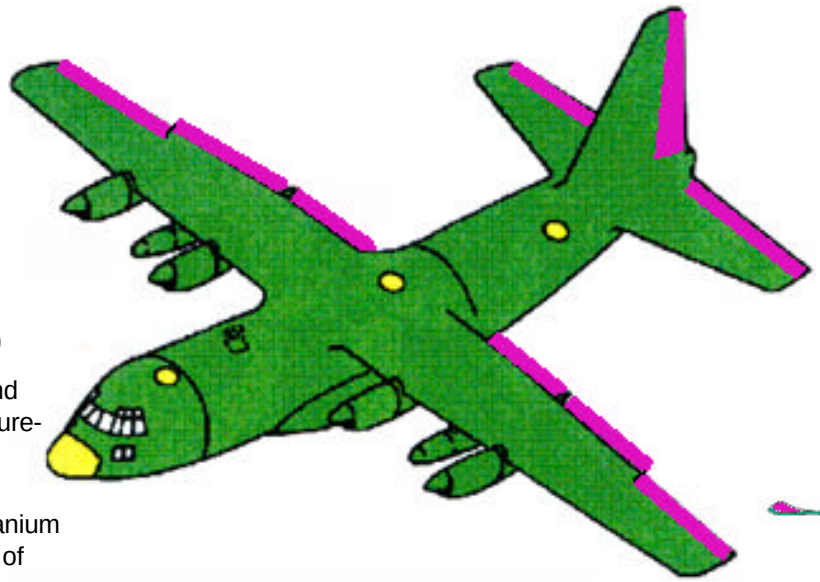
ALUMINUM

NICKLE (PROP EDGE GUARD)

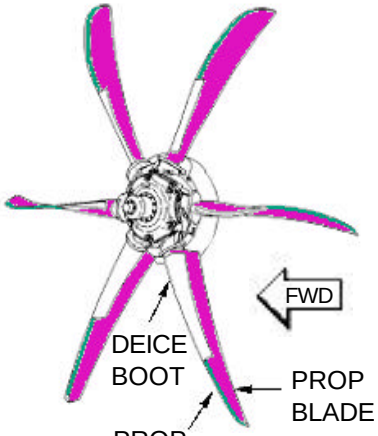
STEEL (TO INCLUDE LANDING GEAR)

OTHER - FIBERGLASS

CARBON FIBER (FLAPS)
32 GRAPHITE-EPOXY (TRAILING EDGE PANELS)

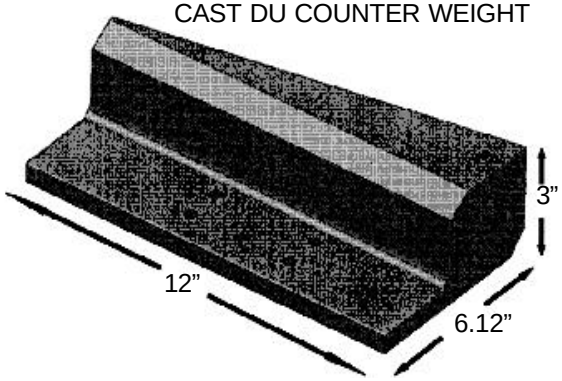


Engines are equipped with 6 propeller blades that are molded and manufactured from carbon and glass fiber, reinforced with a polyurethane foam, and have a polyurethane elastomer outer coating.

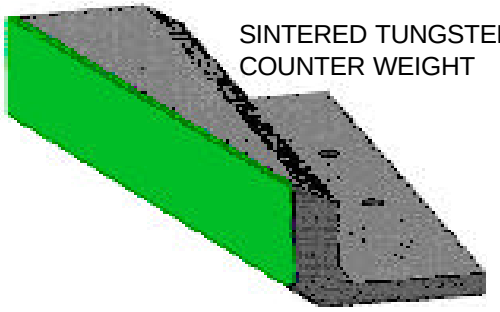


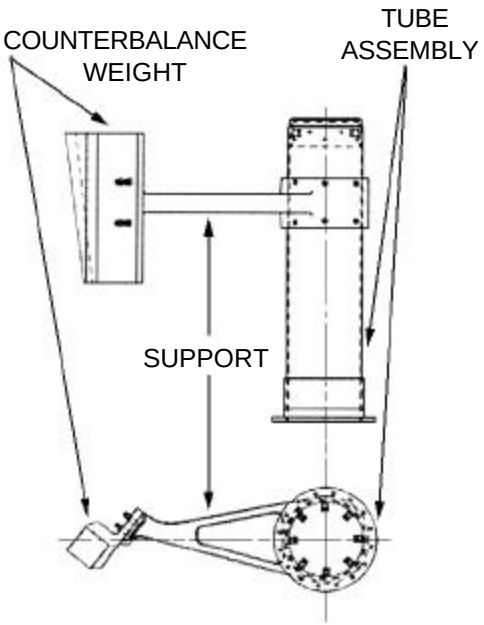
The inboard elevator counterbalance weight is cast Depleted Uranium (DU). The DU is to be replaced by a alternate material selection of Sintered Tungsten. This modification will start with aircraft serial number 5536.

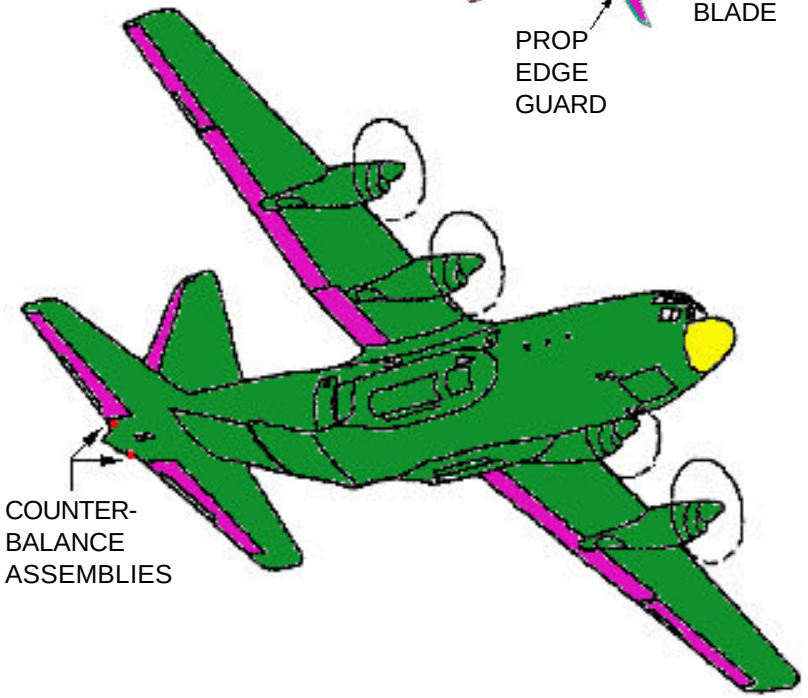
CAST DU COUNTER WEIGHT



Green shaded area represents added volume to maintain mass as DU.







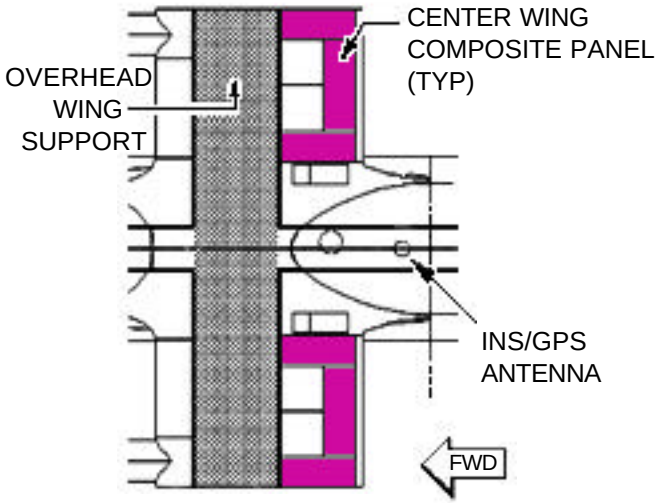
AIRFRAME MATERIALS-Continued

1. AIRFRAME MATERIALS - Continued

Fowler-type wing flaps are located along the trailing edges of the wings. Two flaps are used per side. The flaps extend from the wing root to the aileron. Each section of flap is all composite, constructed of a span-wise beam, ribs, and upper and lower skin panels. The flaps are mounted on carriages that roll on curved tracks. Two carriage assemblies support each center wing flap. Five carriage assemblies support each outer wing flap. The tracks extend aft from the trailing edge of the wing. The flaps are extended and retracted by jackscrew actuators. With the flaps installed, emergency stops are mounted at the aft end of the tracks. The flap's structure and skin are of composite construction consisting of prepregnated carbon fiber and glass fabric.

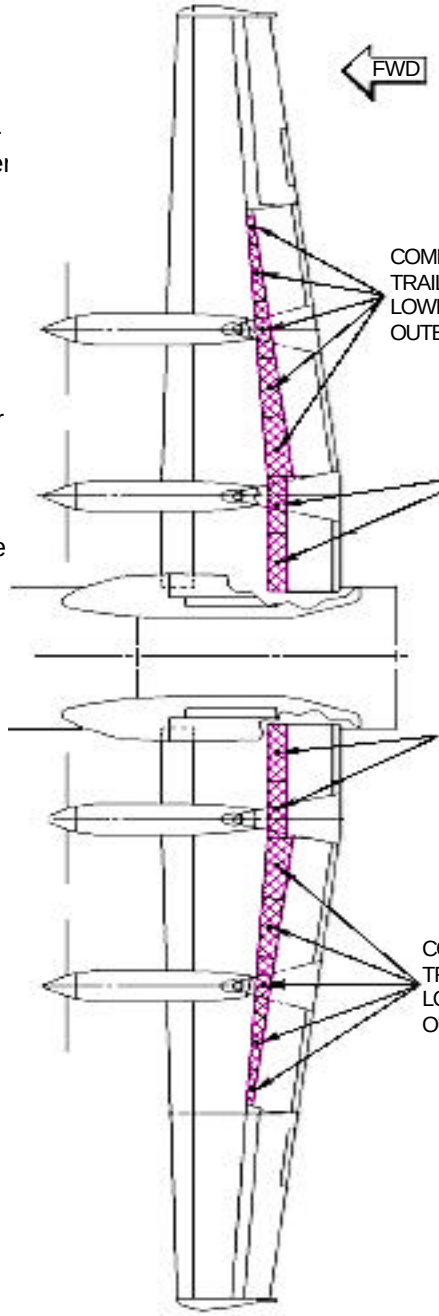
The upper skin panels are of composite construction, consisting of prepregnated carbon fiber and glass fabric. The doors are made up of outer skins bonded to beaded inner frames by a specification MIL-A-5090, Type I adhesive, or equivalent.

The outer wing trailing edge provides fairing for the wing box beam and provides structural support for the outer wing flaps. The trailing edge skin panels are of composite construction, carbon/epoxy prepregnated materials.

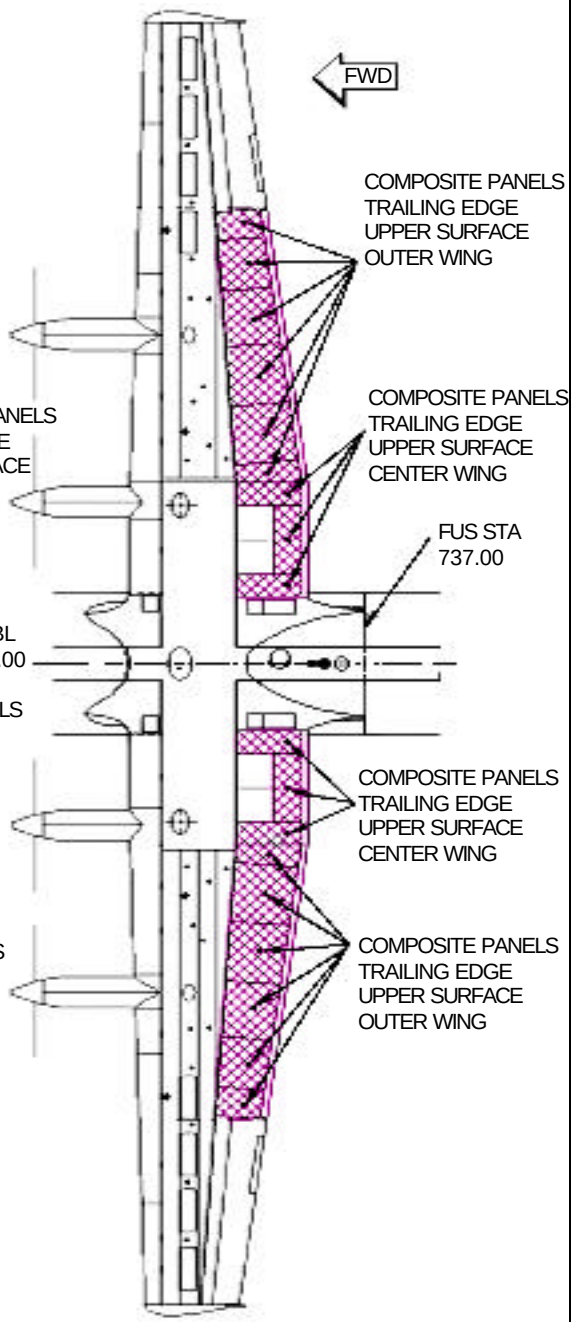


VIEW LOOKING DOWN

UPPER AND LOWER COMPOSITE PANELS



VIEW LOOKING UP



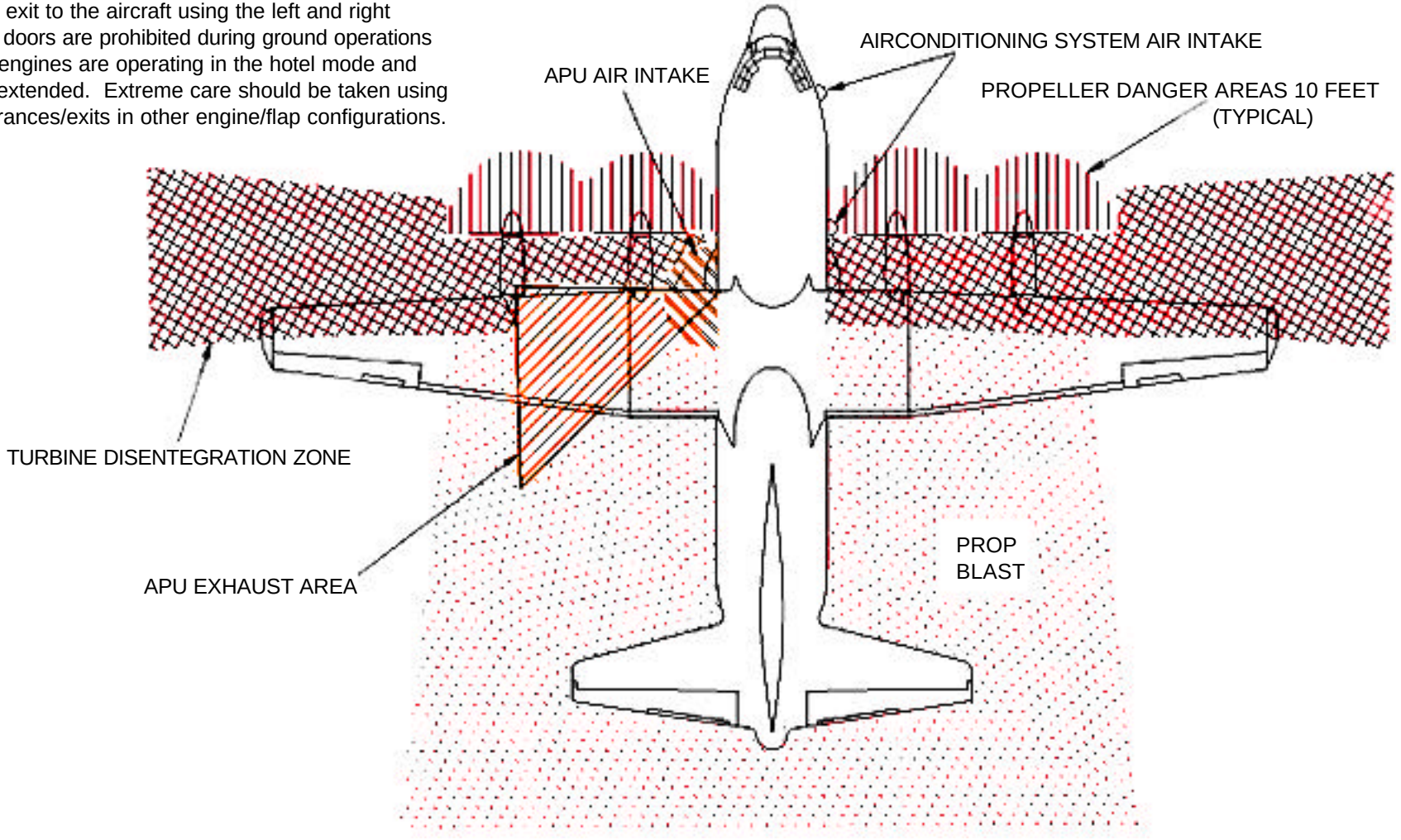
VIEW LOOKING DOWN

AIRCRAFT HAZARDS

1. ENGINE DANGER AREAS

WARNING

Entry and exit to the aircraft using the left and right paratroop doors are prohibited during ground operations while the engines are operating in the hotel mode and flaps are extended. Extreme care should be taken using these entrances/exits in other engine/flap configurations.



MAXIMUM TAKEOFF POWER, NO WIND

DISTANCE AFT OF ENGINE TAILPIPE - FEET	5	100	200	300	400	500
WAKE VELOCITY - KNOTS	178	157	135	120	108	97

AIRCRAFT HAZARDS-Continued

2. EXPOSURE DANGER AREAS

IRCM HAZARD 15 FT RADIUS WITHOUT SAFETY GLASSES, 2 FT RADIUS WITH SAFETY GLASSES

INFRARED LIGHT HAZARD WITHIN 10 FT WITHOUT SAFETY GLASSES

NOTE:

Accidental entry into the hazard areas does not result in injury. It is only through prolonged exposure that the possibility of danger exists.

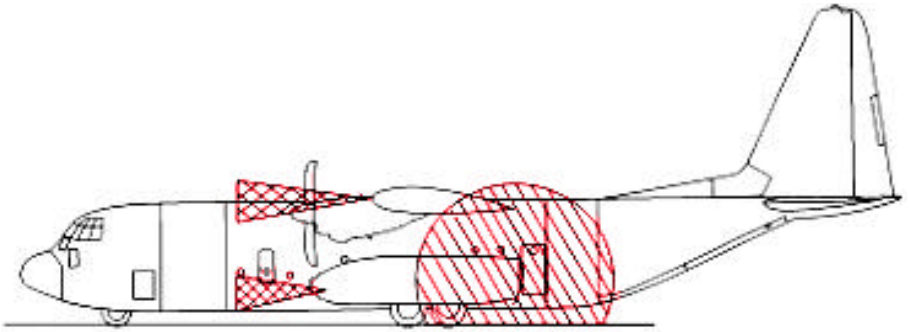
WARNING

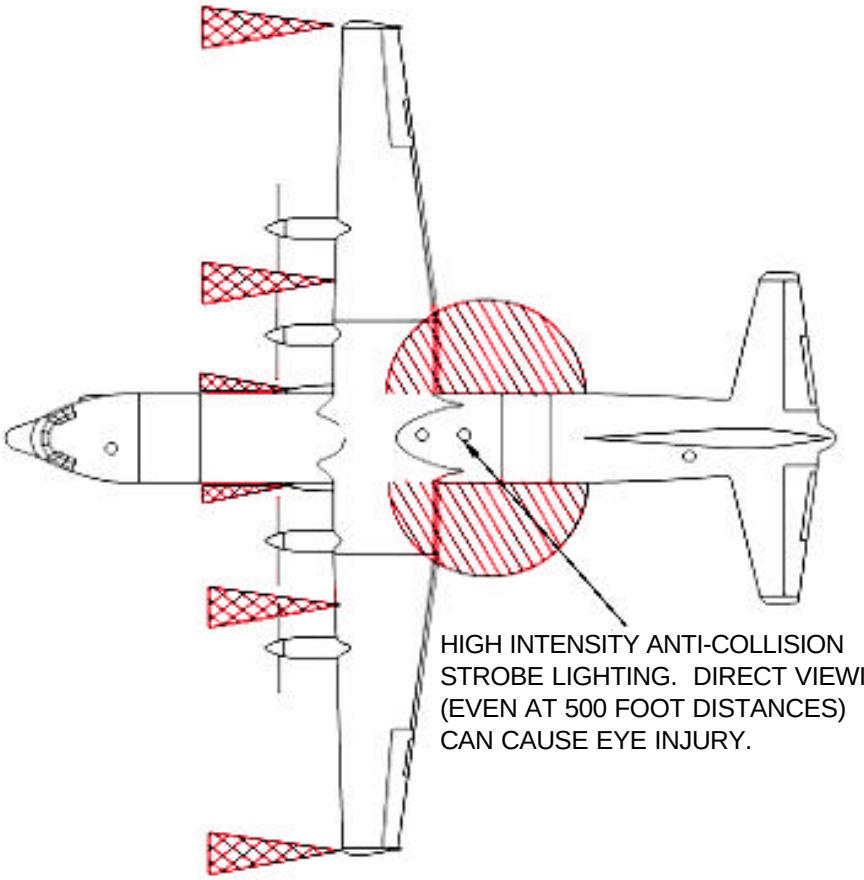
Personnel shall remain at least 15 feet from aircraft during HF transmissions. RF radiation in excess of the permissible exposure limit may occur within that area. Burns or electrical shock can occur if personnel contact the HF radio antenna (aircraft skin) while the radio is operating.

Do not transmit during fuel, oxygen, or ordnance servicing.

Do not transmit while aircraft is in hanger.

Keep support equipment at least 5 feet from aircraft during HF transmissions. HF radiation can impart electrical charges to metal objects which can cause electrical shock to personnel.





HIGH INTENSITY ANTI-COLLISION STROBE LIGHTING. DIRECT VIEWING (EVEN AT 500 FOOT DISTANCES) CAN CAUSE EYE INJURY.

DEFENSIVE SYSTEM SENSOR AND DISPENSER LOCATIONS

1. DEACTIVATION SYSTEM PROCEDURES

WARNING

Failure to install the safety pins may result in an inadvertant discharge. Should circumstances prevent proper safetying of the defensive system, do not taxi near other aircraft until EOD personnel can safety the system.

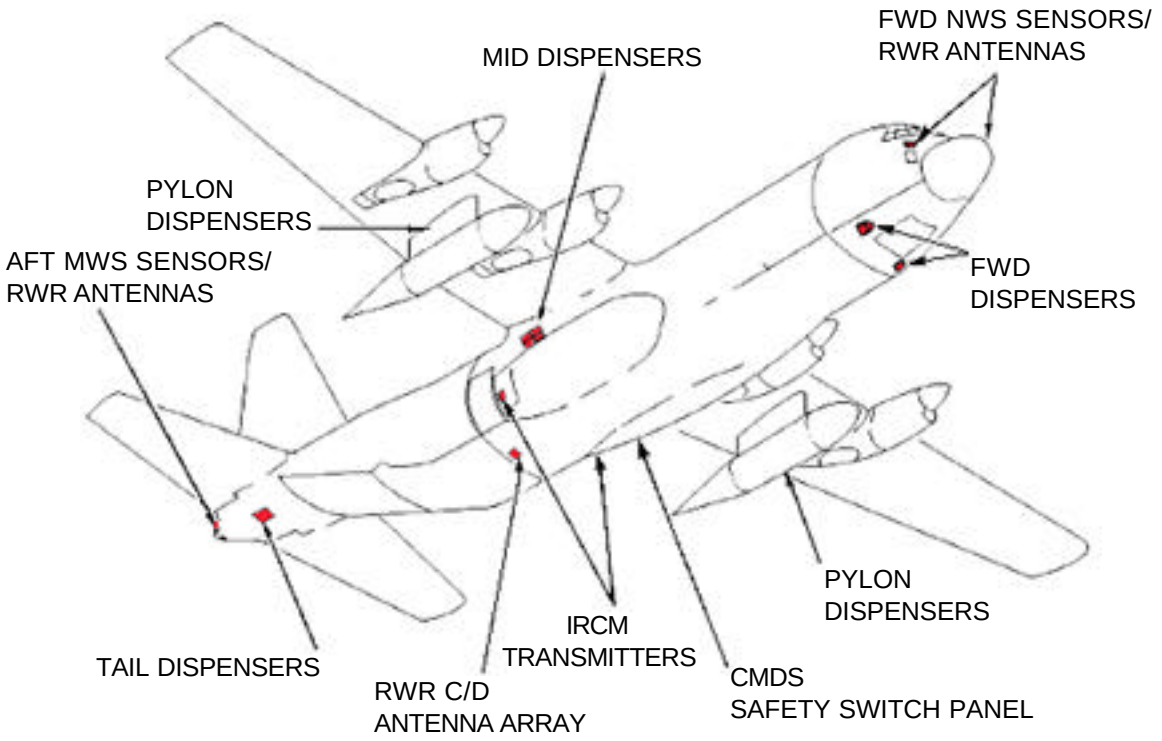
a. Install five safety pins in all safety switches.

b. Place master switch in the STBY position.

c. Place the CMDS switch in the STBY position.

d. Place the MWS power line select key in the OFF position.

e. Place the CMDS power line select key in the OFF position.



SPECIAL TOOLS/EQUIPMENT
Power Rescue Saw
Fire Drill II

AIRCRAFT ENTRY

1. NORMAL ENTRY

WARNING

Forward hatch (2a), right side of fuselage, is in close proximity of right inside turbo propeller. Avoid if propeller/engine is running. This hazard could cause loss of life! Not for entry or aircrew extraction until engine is shutdown. Same for left side if applicable model is in use.

CAUTION

Verify aircraft is depressurized prior to entry. If verification can not be made, use any means possible to penetrate aircraft skin to vent pressure, then enter aircraft. Places to penetrate: entry door, side escape hatches, port hole windows, paratroop doors, emergency escape hatches, and designated cut-in areas. Pressurization is 15.6 PSI.

a. Rotate crew entry door handle, located forward left side of fuselage, counterclockwise and open door outward and down.

b. Rotate troop door handle, located aft on both sides of fuselage, clockwise and push door inward and up until locked in open position.

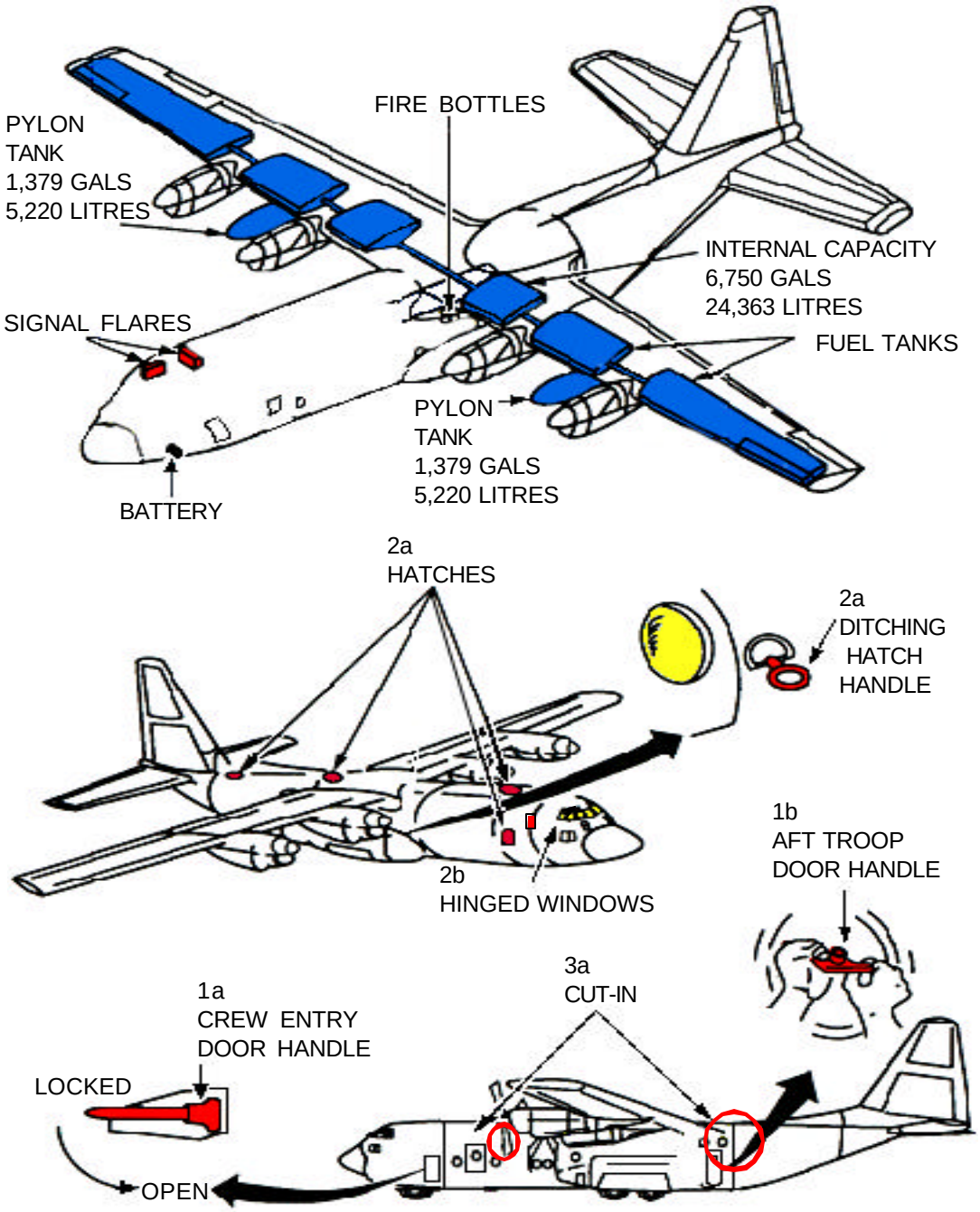
2. EMERGENCY ENTRY

a. Pull the flush mounted release handle and push inward on four hatches located forward, center, and aft top of fuselage, and fuselage forward right side.

b. Two hinged windows in the forward flight station can also be used for emergency exits.

3. CUT-IN

a. Cut-in areas are marked and located on each side of fuselage, above and forward of each troop door.



ENGINE SHUTDOWN AND AIRCREW EXTRACTION

WARNING

Enter through rear troop doors to avoid running aircraft hazards.

NOTE:
DO NOT remove battery power before activating emergency T-handles.

1. ENGINE SHUTDOWN

a. Position condition levers, located on control pedestal between forward crew seats, aft to FEATHER position. Open safety guard of bus-tie switch. Turn switch to ON position.

NOTE:
If switch is left in OFF position, pulling T-handles will only arm fire extinguishing system and not close valves at engine fire walls. Bus-tie is located on overhead panel above pilot's right seat arm rest.

b. Pull fire emergency shutdown T-handles, located on overhead panel, to the aft position. If condition persists, wait 15 seconds after first bottle is discharged and then discharge the remaining bottle.

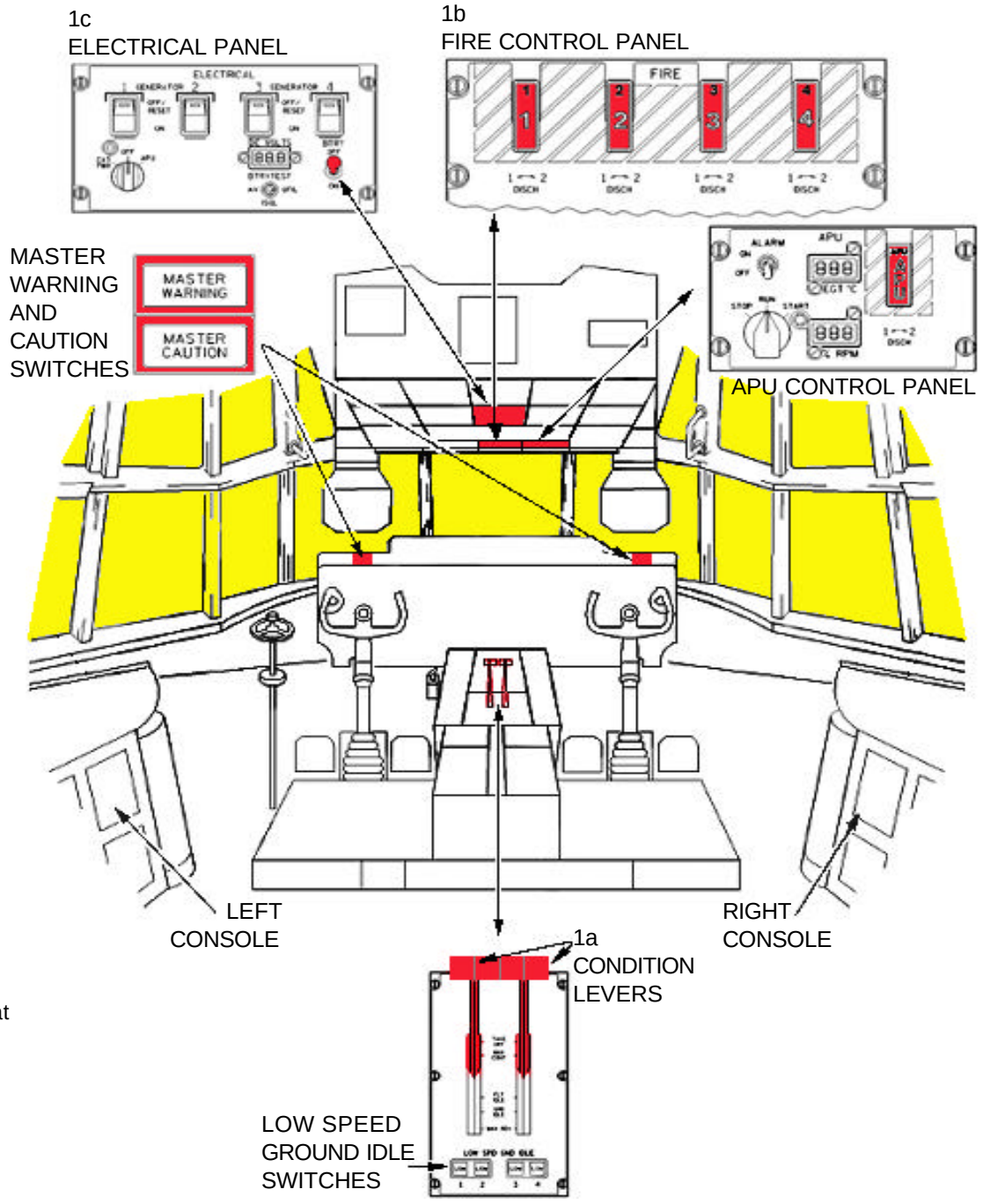
IN CASE OF APU FIRE:
Pull APU T-Handle. If condition persists, wait a minimum of 15 seconds after the first bottle is discharged, and then discharge the remaining bottle. Close the APU bleed air valve switch.

c. Disconnect battery, located forward of crew entrance door or place battery switch, located on overhead control panel, up to OFF position.

2. AIRCREW EXTRACTION

a. Release latch on lap belt and remove shoulder harness from crewmember'(s).

NOTE:
If seat track is not damaged during crash landing, use adjustable seat control to move seat in aft position when removing crewmember. Passenger seats do not have shoulder harness.



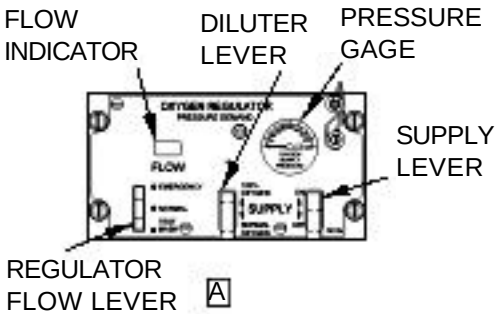
OXYGEN SYSTEM AND SHUTDOWN

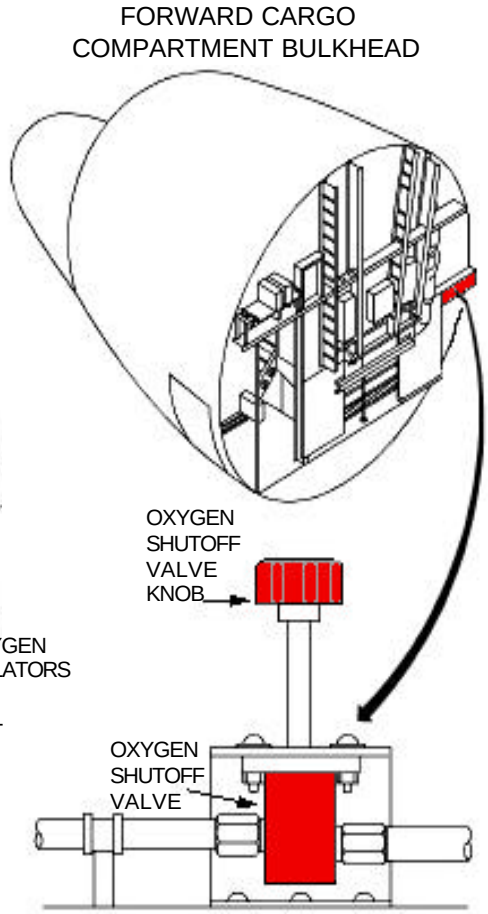
SYSTEM DESCRIPTION

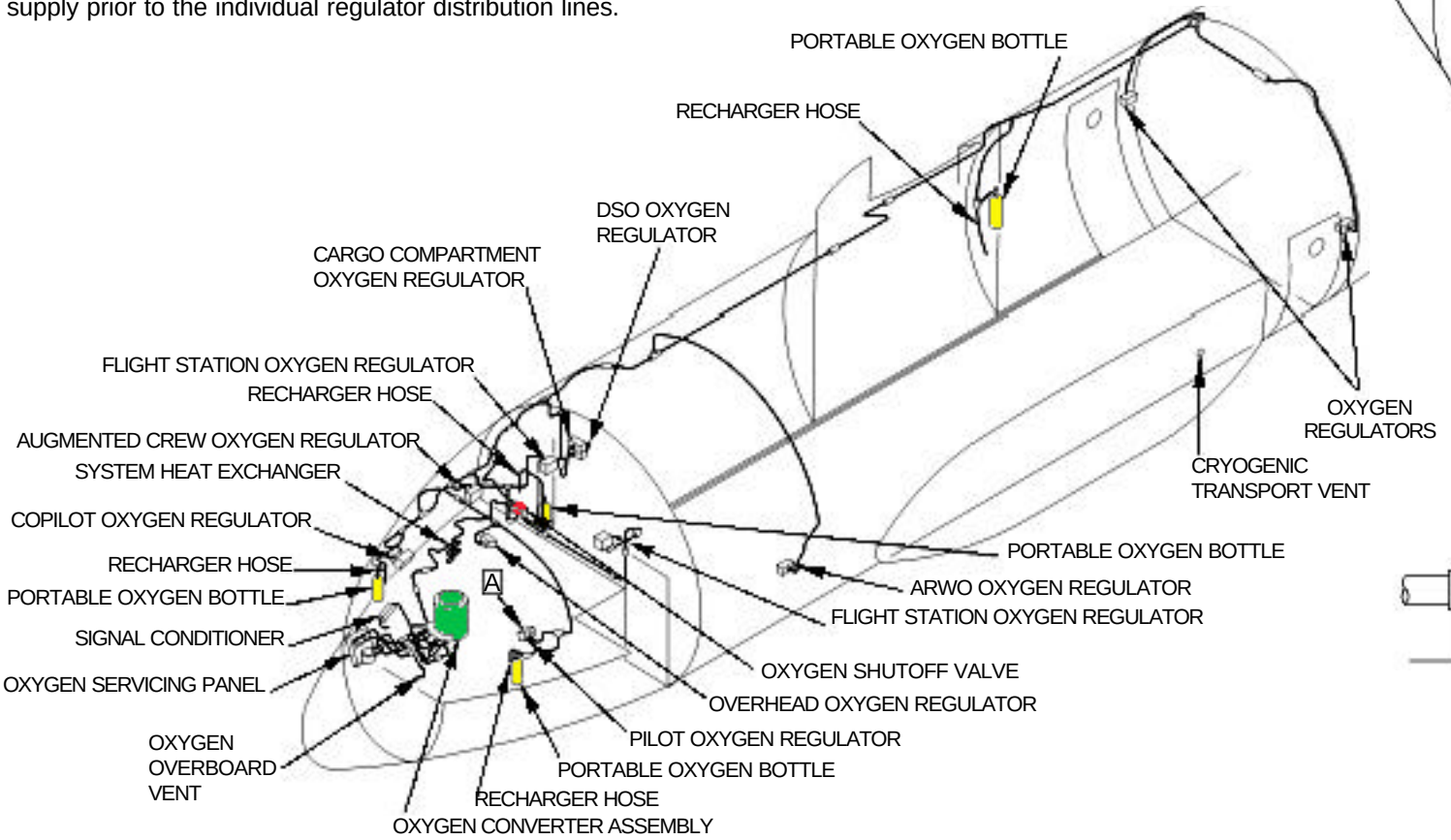
The oxygen system is a diluter-demand, automatic-pressure breathing system with a supply pressure of approximately 270 to 455 PSI. Liquid oxygen is converted to gaseous oxygen for use by the crew. Oxygen regulators are installed in various locations in the flight station and cargo compartment for crew use. Oxygen masks attached to the regulators fit snugly over the user's face to eliminate as much leakage as possible. An oxygen servicing panel is located on the exterior of the aircraft.

OXYGEN MANUAL SHUTOFF VALVE

A manual shutoff valve is mounted on the right side of the cargo compartment forward bulkhead above the air conditioning unit. The valve is normally in the OPEN position. The valve shuts off the liquid oxygen supply prior to the individual regulator distribution lines.







EMERGENCY EXITS & EVACUATION ROUTES FOR GROUND, AIR AND WATER EGRESS

WARNING

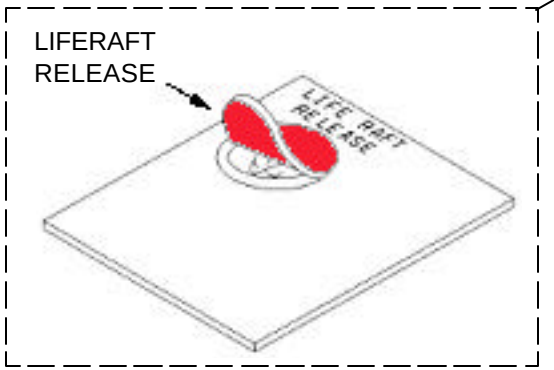
Do not lock the augmented crew member seat in a position that will block the pilot's evacuation route.

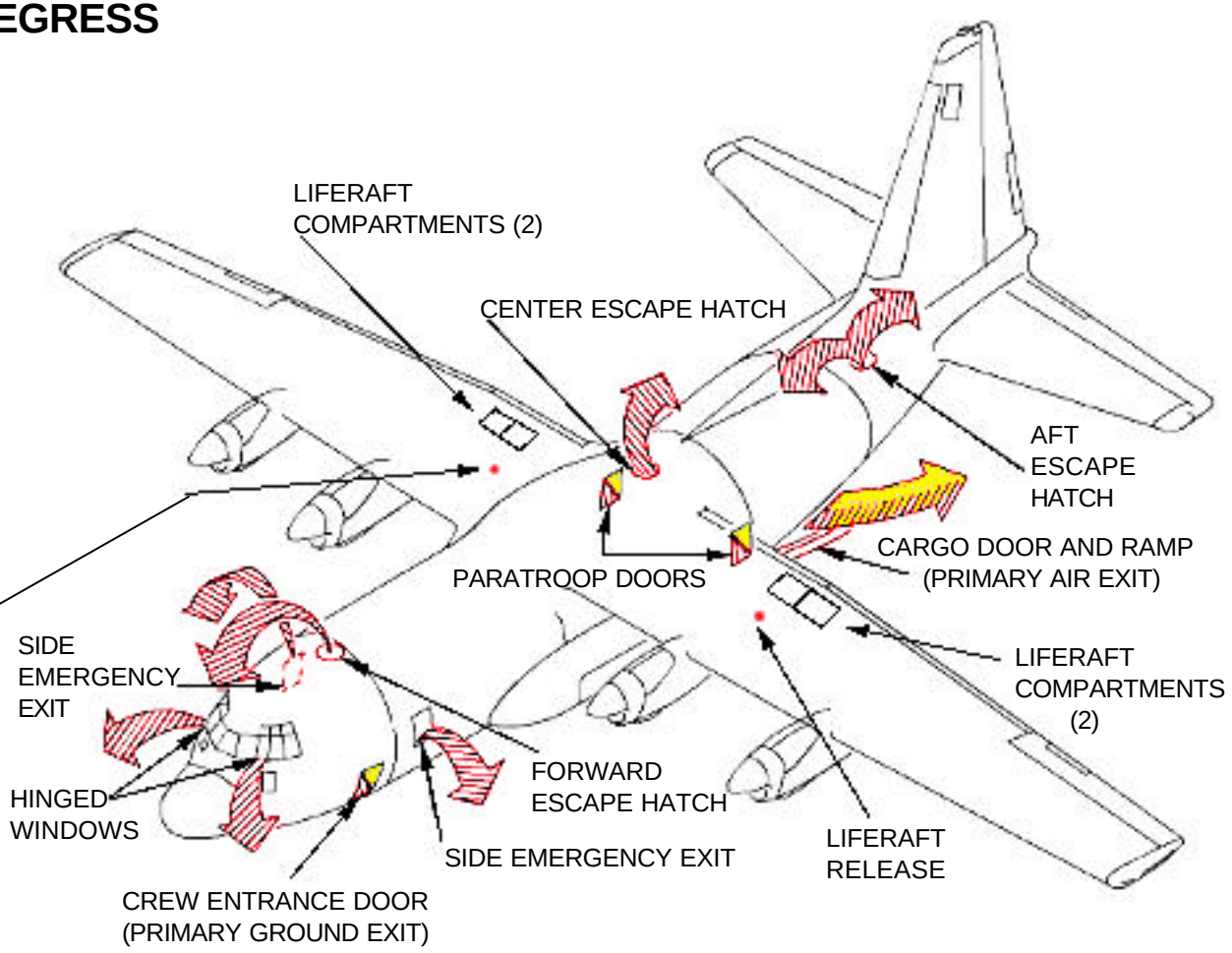
GROUND EXIT

AIR EXIT

NOTE:

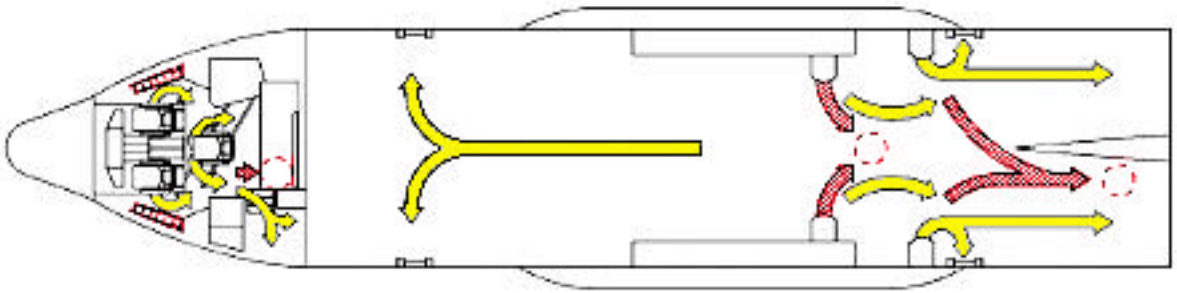
Liferafts are located on both wings. All three overhead hatch emergency routes will converge on these compartments to launch liferafts. The other exits do not allow this function. The liferaft release is just forward of the wing compartments.





EVACUATION ROUTES

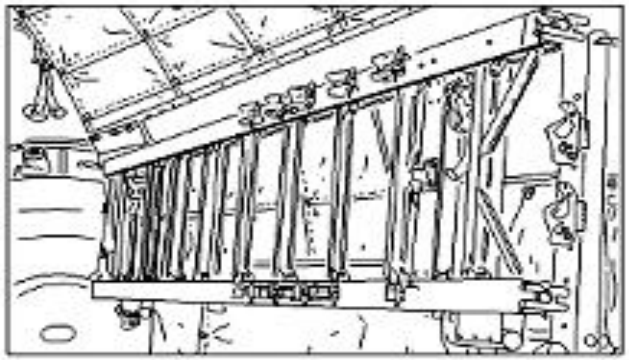
OVERHEAD EXIT



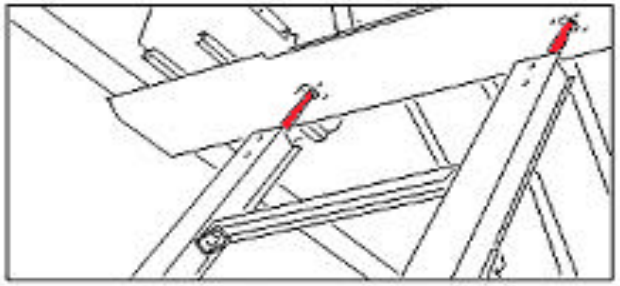
CENTER ESCAPE HATCH LADDER INSTALLATION

1. CENTER ESCAPE HATCH LADDER INSTALLATION

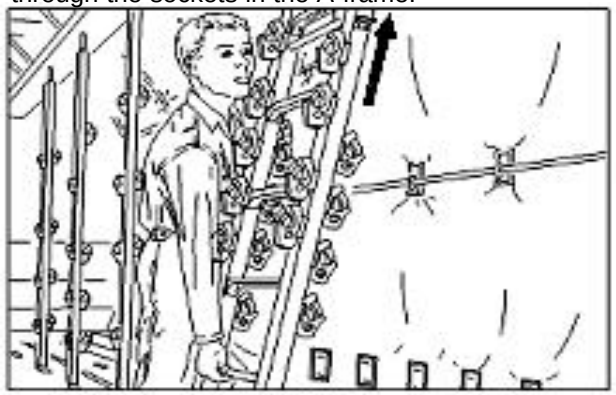
a. Remove the ladder from its stowed position on the left side ofthe cargo compartment.



b. Insert the upper ends of the ladder into the A-frame sockets marked “ladder” directly below the escape hatch in the top of the fuselage, just aft of the wing center section. The ladder must be inserted at an angle which will allow its lower end to clear the floor.

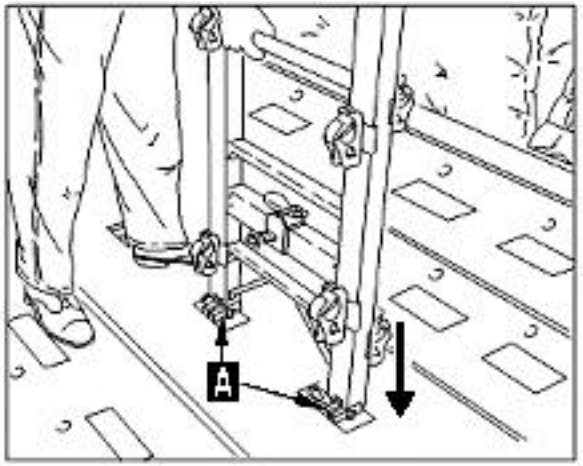


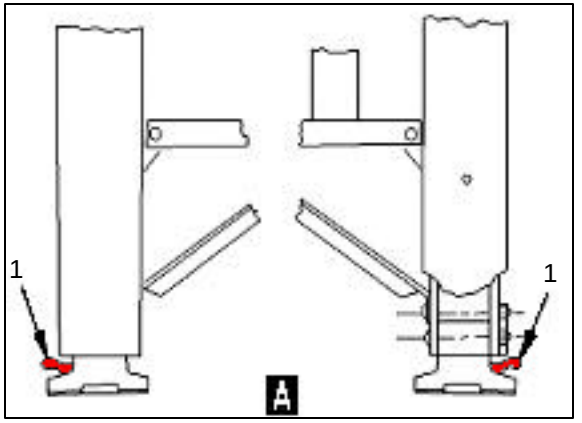
c. Push the ladder upward so that the upper ends go through the sockets in the A-frame.



d. Swing the ladder to vertical, and center it over the proper tiedown studs.

e. Lower the ladder until the latches (1) engage the tiedown studs.





EMERGENCY EQUIPMENT

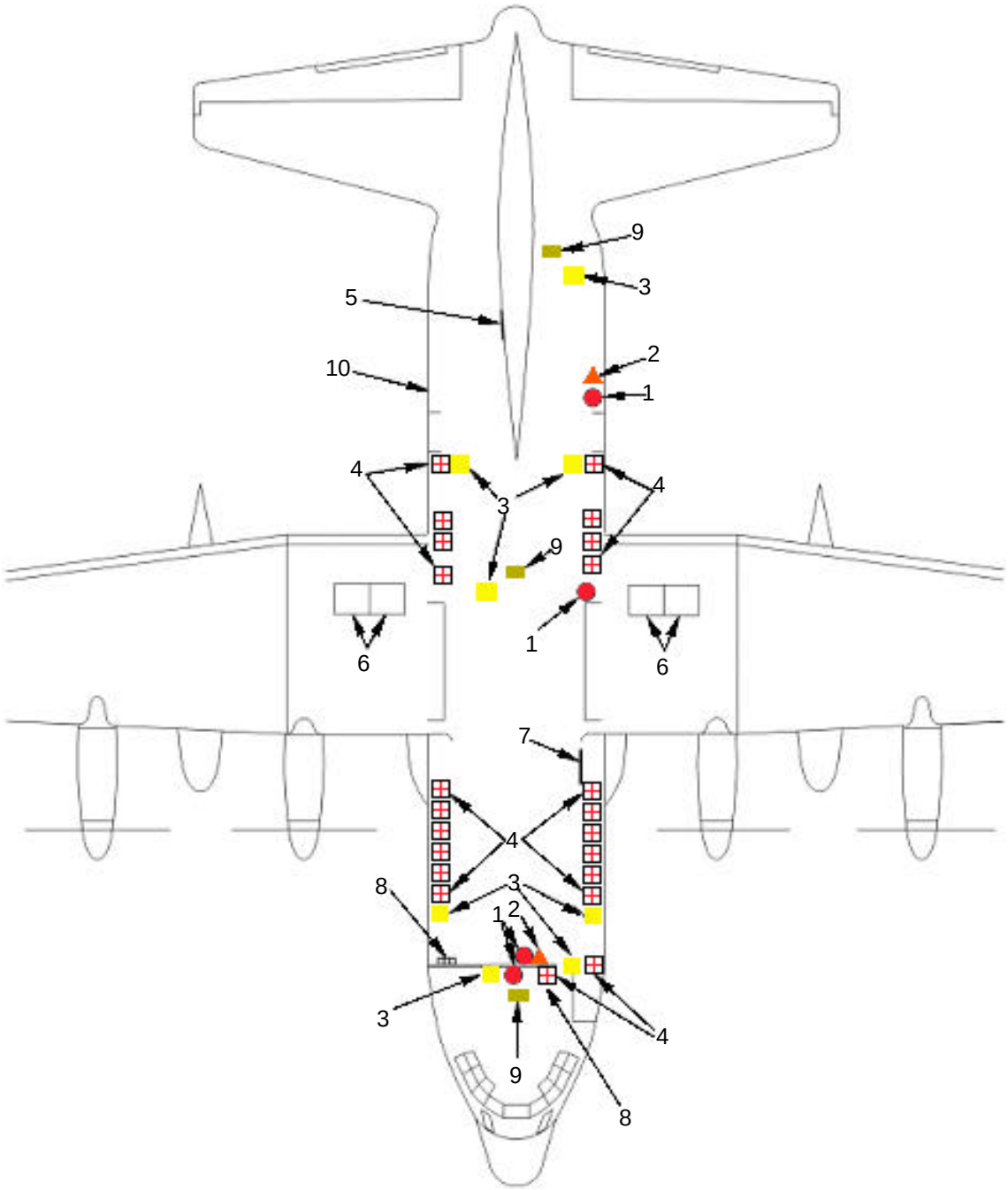
EFFECTIVITY: C-130J

SYMBOLS

- HAND AXE
- EMERGENCY EXIT LIGHT
- FIRST AID KIT
- HAND FREE EXTINGUISHERS
- EMERGENCY ESCAPE ROPE

KEY

1. HAND FIRE EXTINGUISHER (4)
2. HAND AXE (2)
3. EMERGENCY EXIT LIGHT (8)
4. FIRST AID KIT STOWAGE (22)
5. EMERGENCY TRANSMITTER COMPARTMENT
6. LIFERAFT COMPARTMENT (4)
7. STANCHION LADDER
8. LIFE VEST STOWAGE (10)
9. EMERGENCY ESCAPE ROPE (3)
10. EMERGENCY TIEDOWN FIXTURE (2)



EMERGENCY EQUIPMENT-Continued

EFFECTIVITY: CC-130J

SYMBOLS

HAND AXE

EMERGENCY EXIT LIGHT

FIRST AID KIT

HAND FREE EXTINGUISHERS

EMERGENCY ESCAPE ROPE

KEY

1. HAND FIRE EXTINGUISHER (4)
2. HAND AXE (2)
3. EMERGENCY EXIT LIGHT (8)
4. FIRST AID KIT STOWAGE (28)
5. EMERGENCY TRANSMITTER COMPARTMENT
6. LIFERAFT COMPARTMENT (4)
7. STANCHION LADDER
8. LIFE VEST STOWAGE (10)
9. EMERGENCY ESCAPE ROPE (3)
10. EMERGENCY TIEDOWN FIXTURE (2)